

Bulletin No. 12

July, 1914

THE FARM FLOCK

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Manitoba Agricultural College

ANIMAL HUSBANDRY DEPARTMENT

WINNIPEG, CANADA

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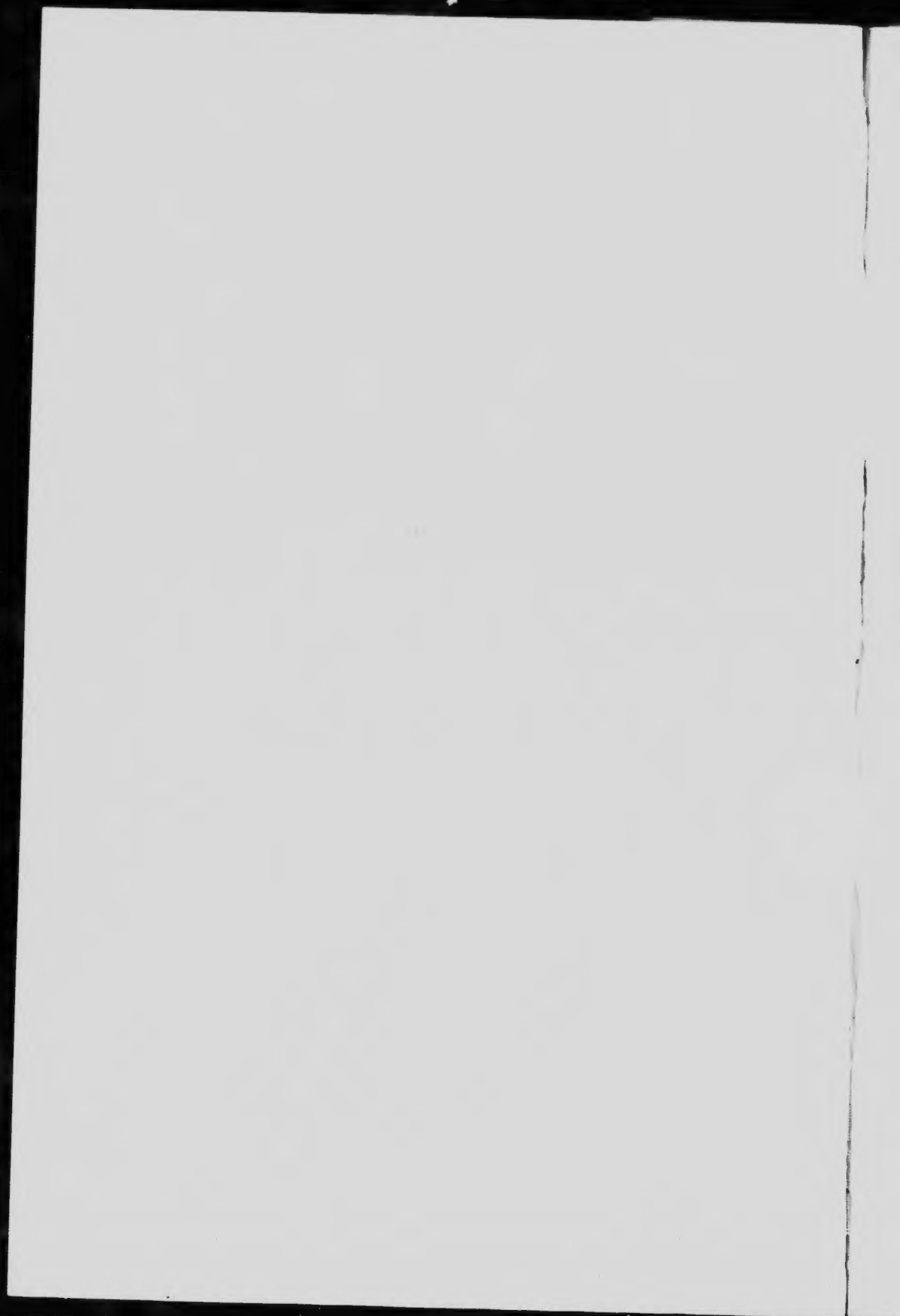
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Manitoba Agricultural College,
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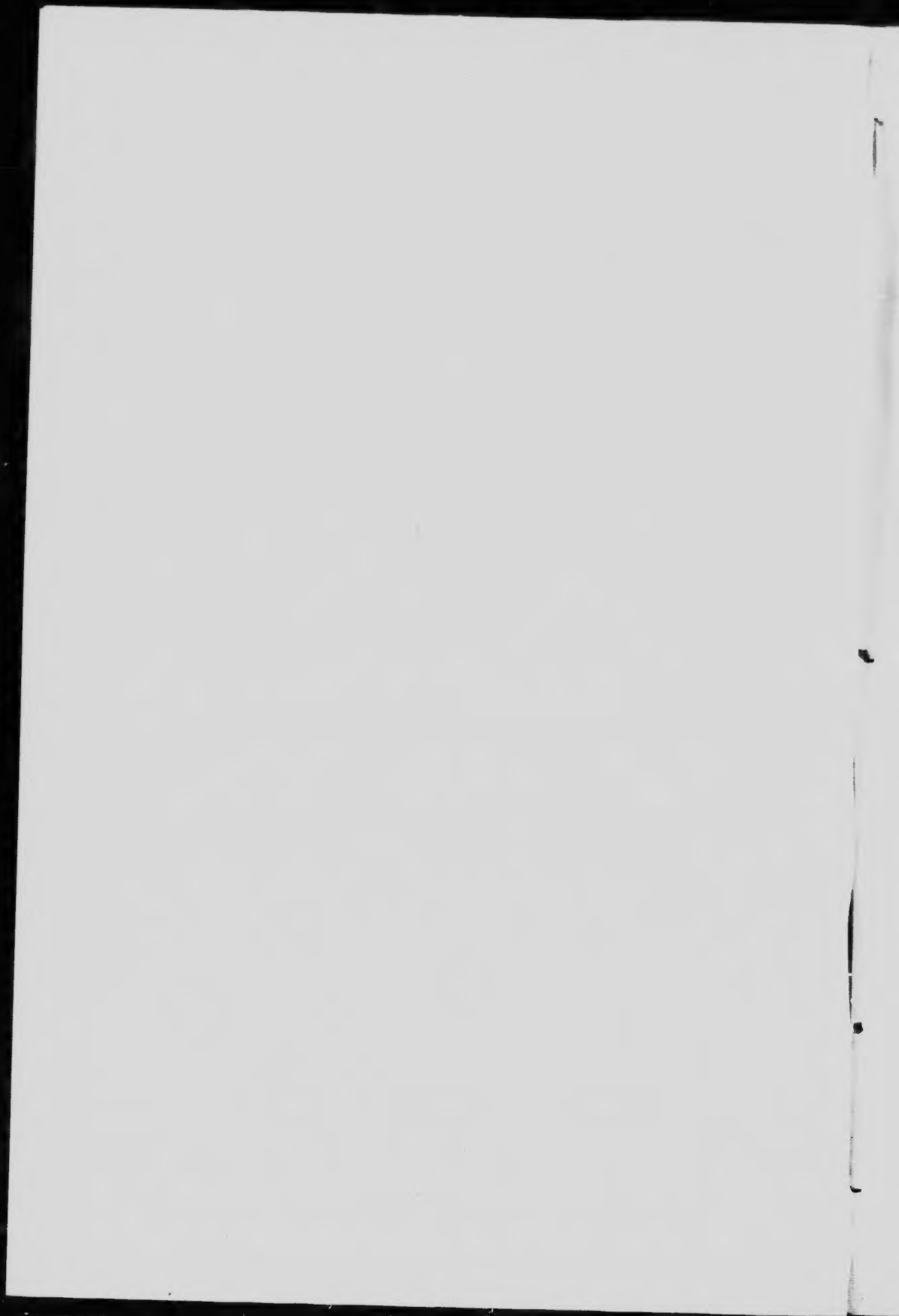
To the HON. GEORGE LAWRENCE,
Minister of Agriculture and Immigration,
Winnipeg, Manitoba.

Sir,—I beg to present herewith Bulletin No. 12
of the Manitoba Agricultural College, entitled "The
Farm Flock," by the Animal Husbandry Department.

This publication is being issued in response to
numerous enquiries for information on this subject.
I have no doubt that it will prove of great interest
to the farmers of this province.

Yours very truly,

W. J. BLACK,
President



THE FARM FLOCK

During the past year a large number of letters have been received at the Agricultural College enquiring about one phase or another of the sheep industry. Because of these many enquiries it has been deemed advisable that a brief bulletin dealing with some phases of the industry be printed and distributed to those interested in sheep.

The object in view in preparing this bulletin has been simply to set forth the fundamental principles involved in the care, feeding and management of a flock of sheep on a farm. The material presented has been compiled from the experience of the writer and others who are handling sheep in this province. It is intended as a guide to the beginner in sheep husbandry and those contemplating the establishment of a flock, rather than to those who are already experienced in the art of sheep management.

There is an awakening of a desire on the part of many farmers to learn something about the possible profits to be made by raising sheep and the probable difficulties that will be encountered. Judging from the small number of sheep to be found in Manitoba at present, we have in the past been particularly averse to this industry. The census reports show that in Manitoba there were in the stated years the following number of sheep:

Year.	No. of sheep.
1893	35,400
1900	25,816
1910	32,223
1912	42,085

These numbers are very small when compared with many other countries of like area and population. In fact, the number is so small that Manitoba has been importing large quantities of mutton. Therefore, it seems that we have a market, and that the people of the province, at least, appreciate mutton for their tables.

In the past the success of our wheat crops has prevented us from giving much attention to sheep. The wolves and the dogs have been a menace—the fencing problem has offered difficulties, and the price of wool has been low. These objections are all gradually righting themselves, and accordingly, with the increased attention to mixed farming, sheep are receiving greater consideration.

WHY KEEP SHEEP?



PART OF OUR 1914 LAMB CROP, M.A.C.

Sheep lovers emphasize three points in support of this class of stock. First: Their value as weed destroyers and consumers of otherwise waste food. They are successful in this because they eat most of the common weeds and they grind everything thoroughly. Once weed seeds have been masticated by sheep they will not grow. The fact that sheep can graze so closely is sure death to weeds.

Second: Economy of housing and management. Cheap buildings are satisfactory as shelter for sheep. Their warm covering of wool protects them from the cold, and all they require is protection from the snow, the rain and the winds. Therefore, when keeping this class of stock, the farmer finds the building problem easy to solve. In this country sheep are subject to few diseases, and they require very little attention, except at lambing time. Thus we see that cheap buildings and little labor—two important considerations to the farmer—suffice with sheep.

Third: Only a small investment is necessary to get a start in the sheep business. From \$150.00 to \$200.00 is sufficient to start any farmer with a fairly good foundation flock. Good young rams may be purchased for from \$20.00 to \$35.00 each. Grade ewes are, of course, much cheaper and can be obtained for from \$10.00 to \$15.00 and lower. If the flock is well cared for and accidents do not occur, 150% increase may be expected from the lamb crop. Where ewes with good fleeces have been selected, the wool will always pay for the keep of the ewes, and thus leave the lambs a clear profit. The initial outlay is therefore small and the returns rapid.

BUYING.

There are two main sources from which one may obtain sheep for the farm, the stock yards and the flock of the breeder. When feeders are desired they may be obtained most satisfactorily from the

stock yards. If buying from this source, the purchaser will undoubtedly get better satisfaction if he engages some reliable commission man to look up the stock for him. It is sometimes possible to get a bunch from some large rancher or breeder, but the supply from this source is uncertain. On the other hand, if the purchaser desires to get breeding sheep, he will do well to communicate with some of the breeders. The most effective way of getting in touch with breeders is by watching the advertisements in the Agricultural Press or writing for Secretary of the Sheep Breeders' Association. Dr. A. W. Bell, Chambers of Commerce, Winnipeg, is now secretary. It has been the practice of the Sheep Breeders' Association in former years to hold sales in the fall of the year, and in this way a good many sheep have been distributed throughout the province. If this practice is continued, notice will be given by that Association.

METHODS OF BREEDING.

Three methods followed in sheep breeding, which present themselves to all sheep owners, are worthy of mention and brief discussion:—First: Pure breeding. This method is of advantage because breeding animals may be raised that will bring higher prices than grades. It also retains greater uniformity of type than can be secured with any other method of breeding. The main disadvantage is the greater cost of breeding stock for the foundation flock.

Second: Cross-breeding. This method of breeding consists in mating a pure bred animal of one breed with a pure bred animal of another breed. The advantage of this method is that it is possible to get developed in the offspring the best features of the two breeds, and thus improve on both of them. It is only done to produce market animals, and is not suitable as a practice to follow indefinitely, because of the expense of maintaining the two breeds and the uncertain results. The beginner had better leave cross-breeding to the more experienced breeder.



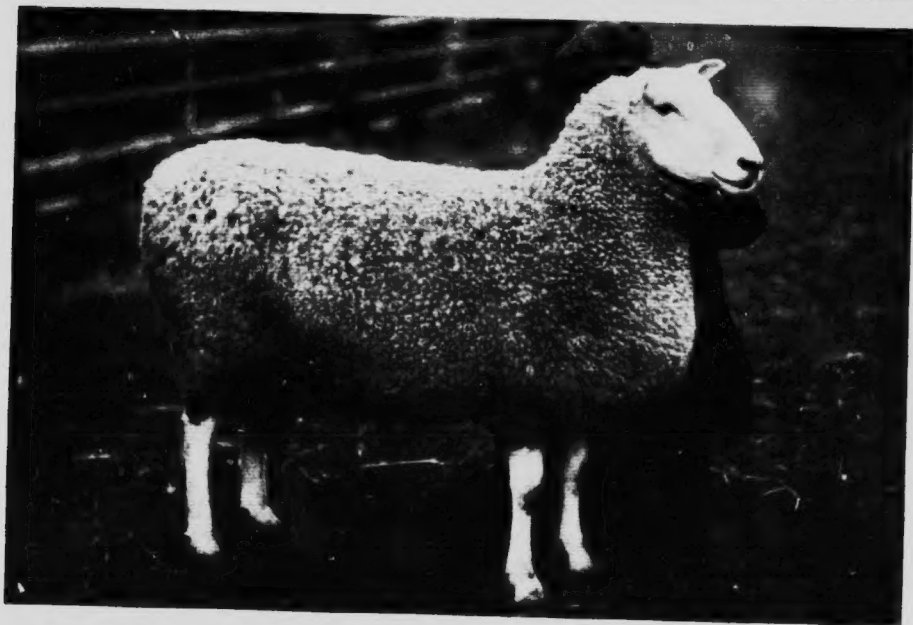
LEICESTER SHEARLINGS

Third: Grade breeding, or mating ewes of mixed or impure blood with a pure bred ram. This is the method that the average farmer starting a flock should follow, because, first: breeding stock can be obtained much quicker and cheaper; second, for raising market sheep, grading is just as successful as pure breeding; third, the market for breeding stock is not of sufficient extent to warrant a large number going in for fancy bred sheep.

In view of the above facts, then, it is better for the beginner to leave cross-breeding alone. Begin by breeding grades and get into the pure bred business when he has become acquainted with the sheep industry, and when conditions warrant it.

BREEDS FOR MANITOBA

The middle and long-wooled breeds are most suitable for this province. Of the middle wools, the Shropshire, Oxford Down and Suffolk



MR. R. TAYLOR'S LEICESTER RAM, "PITLIVIE BRILLIANT"

Down have been most used. Of the long wools, the Leicester has taken premier position. Other breeds might be used with equally good success, but they are less common, and it will be more difficult to obtain breeding stock.

The Leicester is a long-wooled sheep, rather upstanding, yet having a broad, heavily fleshed mutton form. They have white heads and

legs, free from wool, but covered with fine hair. When fully mature the ewes should weigh close to 200 lbs., and the rams somewhat heavier. The average weight of fleece should be about 11 lbs.

The Shropshire is a middle woolled breed. It is low set, compact and blocky in form. The wool covers the entire body with the exception of the end of the nose and the feet. When mature, ewes should weigh about 150 lbs., and the rams about 50 lbs. heavier. The Shropshire fleece should average from 9 to 10 lbs. of unwashed wool.

The Oxford Down is also a middle woolled breed. It is a thick, deep sheep, but not so low set and blocky as the Shropshire. The face and legs are brown and free from wool below the eyes and below the knees and hocks. Mature ewes should weigh about 200 lbs. The Oxfords should shear an average of 12 lbs. of unwashed wool.



SHROPSHIRE TWO-SHEAR RAM, OWNED BY MR. K. W. MILNES

The Suffolk Down is a middle woolled breed and a fairly large sheep, mature ewes weighing 200 lbs. or more. They are deep, thick mutton sheep. The head and legs are black, free from wool and covered with fine hair. They should shear an average of from 9 to 10 lbs. of unwashed wool.

When selecting a middle woolled breed, I would advise the use of one of the above mentioned, as they have all been successfully bred

here, and the number of them in the country will make it possible to get stock for breeding purposes. Furthermore, they all have points of merit, which commend them to the use of the Manitoba farmer. For similar reasons, I would advise the selection of the Leicester among the long wools. There are, however, many pure breeds of sheep, any of which will adapt themselves to Manitoba conditions should any farmer desire to introduce a new breed.

CARE OF THE EWE FLOCK

Be critical about the type of ewe that you select. Get one with a good general appearance. Select ewes that have short, broad heads,



MR. J. HORLICK'S OXFORD DOWN RAM—FIRST PRIZE ROYAL SHOW

with bright eyes and strong muzzles. See to it that they have short, full necks and wide, compact shoulders. Look for a chest that is deep, wide and full. The fore ribs must be well sprung, giving width on top and heart girth. A broad back, loin and hindquarter are very essential. The leg of mutton should be full and deep. Furthermore, the ewes should be low set and should be covered with a thick, compact fleece of fine quality. Size and quality should not be overlooked. Ewes of good size are most desirable, providing they have, with their size, sufficient quality. Quality is shown by clean bone, smooth con-

formation, a pink skin and a fine fleece. If pure breeds are being selected, breed characteristics must be given consideration as well as the above mentioned points.

BREEDING THE EWES.

Ewes should be bred the fall after they are one year old. Very large growthy lambs are sometimes bred the first year, but as a rule this is not a good practice. Such a practice will tend to decrease the size of the individuals in your flock. The time of year at which to



A CHOICE SUFFOLK RAM

breed the ewes will depend entirely upon the time at which you wish the lambs to come. However, as lambs generally do better when the weather is getting warm, it is best to breed the ewes in the latter part of November, or the early part of December. If bred at that time, the lambs will come about the latter part of April or the 1st of May, which time will be sufficiently early for the convenience of the average farmer. The period of gestation of a ewe is about 21 weeks, averaging from 140 to 150 days. The farmer knowing that, and being familiar with his own conditions, can best decide when to breed his ewes.

FLUSHING.

Ewes that have raised one or two lambs during the summer generally get somewhat run down in condition, as most of the feed is used for making milk. In this condition the ewes are not easily gotten in lamb, and furthermore they are not in fit condition to again perform the necessary functions of a breeding ewe. Accordingly, ewes should be given a rest each year. That rest must be between weaning time and the time when the ewes are bred. During this period sheep breeders attempt to get their ewes back into good rugged condition very quickly. This is done by feeding exceptionally well and thus forcing them along rapidly for two or three weeks before they are bred. This practice is termed "flushing," and has many advantages. The ewes will be in better condition to nourish and build up the growing foetus, and will thus endure the strain much better. They will be much more likely to conceive. It has also been found that when flushing is practised a great many more ewes will have twin lambs the following year than when it is not practised. The ewes will all breed within a shorter period when flushed, thus shortening up the lambing season. It is a commendable practice, and all sheep breeders will find it profitable. As the breeding season is fairly late in this country, we will likely have to resort chiefly to grain for this purpose. Oats, bran and oil cake are the most suitable grains, and they may be used with turnips and alfalfa or clover hay. Rich foods are necessary. If the breeding season is early enough that green feeds may be used, they will be found excellent for this purpose.

WINTER CARE AND FEEDING OF EWES.

Caring for the ewe in winter time practically means caring for the pregnant ewe. To care for them in the best possible way the attendant should consider their condition in a natural state, in which they roam the fields for exercise, take shelter in the hills and woods and thrive on the abundant pasture grasses. He should see that they get plenty of exercise and fresh air, and at the same time not forgetting that they require shelter from cold, rough weather. Have them housed in a dry shed that can be closed up tight on stormy days, and yet have it so arranged that the ewes may have the run of a yard on fine days. Have the interior of the building so arranged that they will not have to crowd at the racks and troughs, or there is a danger of injury to some of the ewes and a possibility that lambs may be lost. The breeding ewes should be kept in good condition. Do not get them very fat, or weak lambs will likely be dropped. On the other hand, if they get too thin, it is quite probable that a number of ewes will not have sufficient milk, and that they will not own their lambs. There seems

to be some connection between the glands of milk secretion and the instinct of mother love. Accordingly, we must not let the ewes get to either extreme in condition.

The most suitable grains for the breeding ewe are bran and oats. The bran should be fed sparingly, as it has a tendency to cause the lambs to grow too much bone, and accordingly the ewes will have difficulty in delivering them. Alfalfa and clover hay may be fed, but should be used with care, or they will cause the same trouble as the heavy feeding of bran. Feeding some corn fodder, prairie hay, or good oat straw, along with the alfalfa and bran will materially lessen the danger. I would therefore say that a ration composed of oats, prairie hay and corn fodder, with small amounts of bran and alfalfa, would be entirely suitable. It is not expected that the farmer will have all of the above feeds to give his sheep, but mention is made of them merely to indicate their usefulness and possibly make it easier to select the proper feeds. From $\frac{1}{2}$ to $1\frac{1}{2}$ lbs. of grain per day, fed with $1\frac{1}{2}$ lbs. of roughage, should keep the ewes thriving. This will vary, however, with different individuals and different flocks. The shepherd must notice their variations and regulate the feeding accordingly. Thus we see that it is impossible to specify a definite amount of feed per ewe. All feeds should be given in a properly cured condition. Do not under any circumstances feed frozen or moldy silage or frozen roots. If such foods are fed, a heavy loss of lambs will likely occur. Roots and sweet silage are both desirable feeds for sheep, and may be fed to the pregnant ewe if discretion is used, and they are not fed in large amounts. If the feeder is not going to be cautious and use these very sparingly, he had better not use them at all with pregnant ewes. When ewes are heavily fed with the above foods, they often produce large, soft lambs, that have not strength to rise when born. It is safer to discontinue the use of these foods several weeks before lambing time, and not give them again until the lambs are dropped.

When heavily covered with wool in the winter, ewes very often appear to be thriving when they are not. The shepherd should get his hands on them once in a while to make sure of their condition. In this way he will detect those that are getting too fat, and also any that may be losing in flesh.

CARE OF THE EWE AT LAMBING.

As lambing time approaches, the ewes first expected should be separated from the flock and kept in pens by themselves to eliminate all danger of injury to the young lambs. If the ewe has been properly cared for during the winter, she will likely not have any difficulty in

delivering the lamb. However, the shepherd should be watchful and at once render assistance or he may lose both ewe and lamb. In normal parturition the lamb comes front feet first, with the head lying between the legs. If delivery appears to be taking place in any other way, you will at least know that it is not normal, and then you must be on the lookout for trouble. When the lamb is born and has sufficient strength to take nourishment from its mother, it is a pretty safe proposition. Keep the mother and her young lamb quiet for a few days and feed the ewe sparingly so as not to stimulate heavy milk production before the lamb is able to take it from her. At this time the attendant must watch the udders of the ewes, and if the lamb is leaving so much milk that there is a danger of a caked udder, the milk must be drawn by hand. In a very few days the ewe and lamb may be again turned with the flock. At this period there is no food to excel good rape and grass pasture. In most cases the lambs come before the pasture is very good, and other feeds must be supplied. Oats, bran, alfalfa hay and roots are all excellent foods for the ewes at this time. At any rate, keep them liberally fed, as heavy milk production will only come with good feeding, and this we must have if we would get early growth in the lambs.

THE RAM.

As in all other classes of animals, a good sire is important. When a poor ram is used on a flock of good ewes, the quality of the entire flock is thereby lowered. Select a ram of the breed you prefer. See that he has size and quality. Look for a sire that is low set and blocky in form. A short, broad head, wide, compact shoulders, a deep, full chest, a broad back and hindquarter and a full leg of mutton are all conducive to the proper form. Good, strong bone is desirable, and yet it should not show coarseness. Be sure of strength of constitution as indicated by the fullness of chest and heart girth. A point that must not be overlooked is masculinity. See that he has strength in his head and presents the appearance of a male. Do not decide without first examining the length, compactness and quality of his fleece. Having considered all the above points, turn your attention to breed characteristics.

During the breeding season have the ram healthy, but not too fat. An overfat ram is often lazy and infertile. For that reason avoid rams that have been highly fitted for show purposes. Keep him vigorous with good food and plenty of exercise. Such foods as oats, bran, oil cake, alfalfa, clover, prairie hay and roots will all be found useful for this purpose. The feeder must judge for himself the amount of feed to be given, as this will differ greatly with different animals. About 2

lbs. of grain mixture, a similar amount of roughage and several pounds of roots should prove satisfactory for the mature ram. During the summer good grass and rape pasture will keep him in good condition. Have a lot for the rams separate from the ewes. If only one ram is kept, put him with some wethers.

The ram may either be turned in to run with the ewes at breeding time or he may be let in with them for a short time each morning during the breeding season. The average farmer who is keeping a flock of grade ewes will find it most practical to leave the ram with the ewes until all are bred. When this method is practised, the breast of the ram should be marked with red paint powder, so that he will mark each ewe he breeds. As each ewe is bred, she should be separated from the rest of the flock. When this is done, the ram will at once turn his attention to other ewes, and his energy will not be wasted. When the practice of turning the ram with the flock for an hour or so each morning is followed, more attention will be necessary. This practice is called "hand-coupling," and is only practical to the man who can afford to keep an attendant with the sheep at all times. If following this method, the ewes that are bred each morning will be at once separated from the rest of the flock. The advantage of this practice is that it is possible to keep a more accurate record of the ewes, and the energy of the ram is not wasted. Where a large flock of ewes is kept, the first method of mating is recommended. A record of the date when the ram was turned with the ewes, and when he was removed should be kept. In this manner the breeder would have sufficient record to guide him as to when the lambs would begin to come.

The number of ewes that a mature ram should be allowed to serve will depend to a large extent upon how well he is settling them. If they are coming back the second time, he will not be able to serve nearly so many as if one service was sufficient. If settling the ewes satisfactorily, a mature ram should serve fifty ewes during the season, and if exceptionally vigorous he will handle more than that without difficulty. Young rams may be used to a limited extent with success, but should not be placed at the head of a flock.

CARE OF THE LAMB.

Have the young lambs coming at a time when you will be able to give them some attention. The important thing is to get the lambs started. Joseph Wing, a recognized authority on sheep, says: "A lamb that is able to get up within fifteen minutes after it is dropped and find the teat itself is half raised." A great many lambs need to be assisted to get their first nourishment, and right here is where good attention and care will make the difference between a profitable and an unprofitable lamb crop. Sometimes it may be necessary to start them



LEICESTER LAMBS

on a bottle, and one suitable for the purpose should be kept at hand. In any case an attendant should be on hand to see that the lambs get nourishment quickly, and if necessary he should hold the lambs to the ewes until they have had a good fill. If a lamb gets chilled, it should be warmed at once. When severely chilled, the best way is to immerse it in water as hot as you can stand on your bare arm. Remove the lamb immediately and leave it wrapped in flannel cloths until dry. If, on the other hand, it has been but slightly chilled, place it in a tub of bran and cover all of the body except the head. Here the young thing will become quite warm, while the bran will absorb the moisture from the body. When lambs are very weak, warm milk should be given from a bottle, and, if available, a drop or two of whisky with the milk will assist greatly. After getting the lambs safely started in life, all that is needed is the occasional visit of the shepherd to see that all is well.



OXFORD LAMBS

DOCKING AND CASTRATING.

All lambs should be docked when they are from 10 days to two weeks old. Use a sharp knife or a pair of hot pinchers. The advantage of the hot pinchers is that the wound is seared and bleeding prevented. When using a knife, hold the end of the dock tightly for about one minute after the cut has been made, and bleeding will be, to a large extent, prevented. The dock should be left almost an inch in length. The writer docked all of the college lambs this year with a knife, and this method proved quite successful.

The male lambs that are not to be kept as breeders should always be castrated at about two weeks old. Do not dock and castrate a lamb the same day; the shock would be too severe. Leave several days between the two operations. When castrating, cut off the lower part of the purse and draw out the testicles. If done soon enough, it will not be necessary to sever the cords, as they will break easily. Castrating is a very simple matter, and very little loss should occur if the work is carefully done, and some mild disinfectant applied to keep the parts clean. Creolin or lard and turpentine are quite suitable. The necessity of castrating cannot be emphasized too strongly. Castrated lambs will sell for more money, they will grow more rapidly, be in better condition, and give less trouble than if left entire.

THE LAMB CREEP.

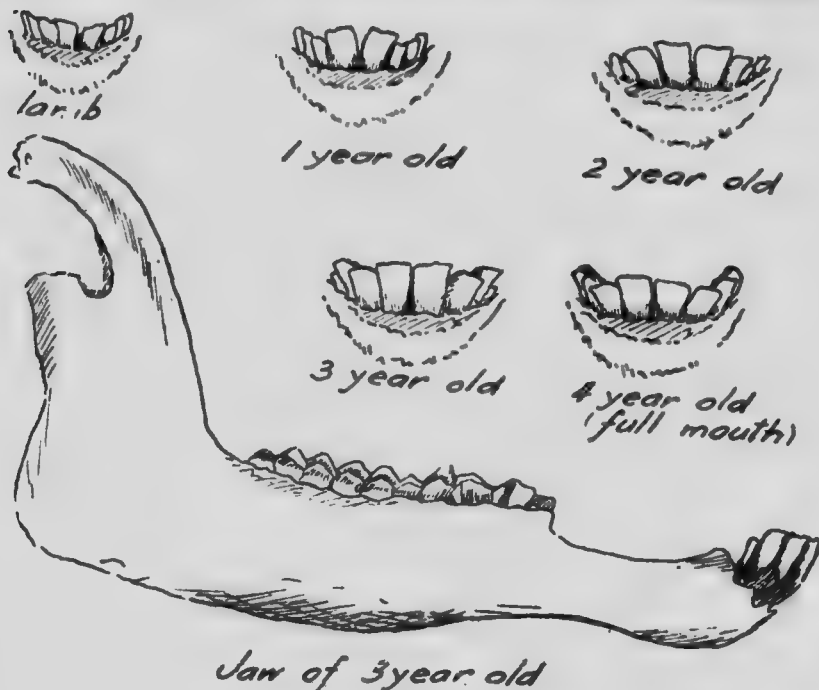
Young lambs, like all other animals, very soon learn to eat grain, and as the early gains are the cheapest and easiest made, everything possible should be done to encourage early growth. Experienced sheep breeders encourage this by providing a lamb creep or a small pen separate from the sheep run. The lambs alone have access to the creep. Within this enclosure food is provided for the lambs in racks and troughs. To make a suitable lamb creep, fence a small lot within the sheep run. Leave openings in this fence, large enough so that the lambs can get through and the sheep cannot. Supply fresh grain and freshly cut green feed in the creep. This will supplement the food that the lambs are getting from their mothers and make gains much more rapid. For one who is marketing his lambs in the fall the creep is practically indispensable, if he is to get them to a good weight and in good condition before going to market. Farmers will find that as the lambs get older and it is necessary for them to squeeze through the openings into the creep, considerable damage will be done to the wool, unless some effort is made to prevent it. To overcome this difficulty and protect the fleeces, some sheep owners set several rollers up on end just far enough apart so that the lambs can squeeze through. This allows having the openings small enough so that the ewes cannot enter, and yet the smooth surface and turning of the rollers saves the lamb's wool.

SORE EYES.

Shortly after birth, lambs often become affected with sore eyes. The eye becomes dull, it runs water a great deal, and very often a scum is formed on the eyeball. To the casual observer it will appear that the lambs are merely troubled with a slight cold. However, when you look closely at the young animals, you will find that they are perfectly healthy, with the exception of the eyes. Investigation has shown that this disease is contagious, and will affect all the lambs in the flock if it is not attended to at once. A very speedy cure can be brought about by treating the eyes with sheep dip. The dip should be mixed quite strong and the eyes and face washed with it thoroughly, taking particular pains to see that some of the dip enters the eye. The writer had experience with sore eyes this year, when almost every lamb in the flock was affected. When they were washed with the dip an improvement was noticed at once.

WEANING THE LAMB.

There is a difference of opinion prevailing among shepherds as to the best method of handling the lambs at weaning time. Some favor taking the lambs away and not letting them return to the ewes at all,



whereas others prefer letting them return to the ewes two or three times, thus weaning them gradually. I find upon reading the opinions of two of the best authorities on sheep in America that they have exactly opposite views upon this point. Accordingly, the conclusion may be that there is method and merit in both plans, and I leave that point to the reader's discretion. It is essential, however, that the lambs be thoroughly accustomed to feeding before they are weaned. Furthermore, plenty of good food should be given immediately after weaning to prevent the lambs dropping off a great deal. Such foods as crushed oats, bran, oil cake and alfalfa or clover, as well as pulped roots, will do admirably for this purpose. If alfalfa or clover are not to be had, give some other good succulent roughage.

The udders of the ewes should be given attention after the lambs are weaned, no matter which method has been followed when separating the lambs from their mothers. If this is not done very often, the udders of the ewes that are heavy milkers will be damaged. Milk the ewes by hand if necessary, and be sure that they are examined several times shortly after the lambs have been removed.

MARKETING LAMBS.

Several methods of marketing lambs are practised. At times it is the practice to market lambs early when they are fat from their mothers' sides. In case this is practised, the lambs must come early, and a fancy market must be found for them. Some men who have given it attention may have worked up a small trade here, but as the Manitoba farmer usually does not have the necessary equipment to handle early lambs—or the necessary market—this practice is at once eliminated, as far as general farm conditions in this province are concerned. On the other hand, a very general practice is to market the lambs in the fall, shortly after weaning. If this method is to be followed, full use should be made of the lamb creep. In this way lambs may be made to grow as fast as possible, and be in condition to bring the highest price on the market.

It is generally thought that it is preferable to market the lambs in the fall, rather than to hold them over until the next spring. This, of course, will depend on conditions. If the lambs are well grown and fat, they will be better marketed in the fall. On the other hand, if they are lacking in size, and are not in very high condition, they should be fed over the winter, and put on the market in the spring. Lambs make quicker gains and bring higher prices than wethers. It is said by most sheep men that for this reason they prefer to put their lambs on the market. Further, it is not necessary to keep the lambs so long, which will certainly be quite a saving.

GENERAL INFORMATION

CATCHING SHEEP.

Do not seize the sheep by the wool when catching it. The wool on the body of the sheep stands in the same relation to its body as the hair does to your head. Think and be gentle. Catch the sheep either by the jaw or the flank. If you wish to catch a sheep that is moving away from you, step quickly up to it and catch the flank. In this manner you will not have any difficulty in holding it while you reach with the other hand and catch it under the jaw. When the animal is moving towards you, catch it by the jaw at once. Hold a sheep by standing or kneeling on one knee at the left side of the animal, place one hand under the jaw and the other on top of the head. This method is convenient, simple, effective and is not unpleasant to the sheep.

TRIMMING FEET.

If the sheep are kept inside much of the time, you may find it necessary to trim their feet. Particularly is this true of the rams. The hoof grows long, turns under the sole of the foot, and accordingly it is difficult for the animal to stand straight on its legs. Trimming is very easily and quickly done. Turn the sheep on its rump and lean the shoulders back against your knees. Have a sharp jack knife at hand, and by holding the foot with the left hand, you can easily use the knife with the right. Cut away the unnecessary pieces of hoof and leave the sole of the foot as level as possible. If this is done, a number of the sheep will be kept a good deal better on their feet.

SHEARING.

This operation may be performed with the hand shears, or with the machine. For the small flock the hand shears are quite suitable, especially if there is a man on the farm who is an expert. Even with large flocks, hand shearing may be satisfactorily practised, if expert shearers are employed, but the amateur will find it very tedious and unsatisfactory work. With the machine the beginner will get over many more sheep than he could with the hand shears; he will also find it much less tedious work, and will make a noticeably better job. The machine shears can be purchased from the firms that handle horse clippers. They may be attached to the regular horse clipper gear, so

that if you already have a horse clipper, all that you will need is the drive shaft and knives. The college purchased such an outfit this year and used it with the horse-clipper gear. It was a decided success. The cost of the machine was \$9.00 at Winnipeg.

The time of shearing must be determined by the farmer according to the weather and his conditions. The weather should be bright and warm when shearing commences. About the middle of May is generally considered to be a satisfactory time. At the time of writing—May 19th—the college flock are all shorn and they are doing nicely.

Have a clean floor on which to clip your sheep. Put a bundle of hay in the centre of the floor and place a blanket over it, preferably a large canvas. This bundle of hay covered with the blanket will serve as a pad to set the sheep on, and they will accordingly remain quieter while the clipping is in progress. Catch your sheep, set it on its rump, with shoulders leaning back against your knees. Hold the head back under one arm. Take the shears and commence as shown in the accompanying cut. First clip off the belly and open up at the neck so that the fleece divides and falls both ways. Commence then at the neck and work down to the dock, clipping the one side and allowing the wool to roll down ahead of you. Turn the sheep and clip the other side in the same manner. When you have finished, the fleece will all be in one piece.

ROLLING AND TYING THE FLEECE

Lay it flat on a clean floor with the cut ends down. Throw the broken pieces into the centre and then roll in the outsides. Roll the fleece from one end into a neat roll. draw out some of the wool and twist it like a rope until you have a piece of sufficient length to tie the fleece. When fleeces are tied in the above manner they are not injured by coarse fibres that so often detach themselves from the cord used when tying the fleeces. Cord may also be used, but if so, some kind of woollen cord should be obtained, thus preventing injury to the wool. The fibres of the cord being of a vegetable nature, will not take the dye, but leave noticeable marks in the cloth. If a good cloth is desired, they must be removed. This adds expense to the preparation of the wool, and therefore wool dealers discriminate against fleeces tied with rough, coarse twine. Binder twine should not be used.

PACKING WOOL.

Pack the wool in sacks. Bear in mind the same ideas as you have when tying it. Use sacks from which coarse fibres will not detach themselves and become mixed with the wool. Put the wool in the

sacks and keep it in a bright airy place until it is placed on the market. Information in regard to dealers in wool can be obtained by communicating with this department, or with the Secretary of the Sheep Breeders' Association, Chambers of Commerce, Winnipeg.

MARKETING WOOL.

The marketing of wool is somewhat unsatisfactory in Manitoba, as such a small amount of it is produced. Markets have been poor and prices of wool have been low, accordingly farmers have, as a result, become discouraged with the industry. Although all the trouble does not lie with the farmer, he still is at fault. If the wool in the country were put up in a little better shape, it would command a higher price. The writer found when pricing wool on the Winnipeg market that the price was running all the way from 11c to 16c per lb., depending upon the condition of the wool. If there are several farmers in a district with sheep, I think they would find it much to their mutual advantage to co-operate in shipping and marketing their wool. At present the move of the Sheep Breeders' Association in attempting to handle this product for the sheep breeders of the province seems a commendable act and should receive the support of all breeders. It is undoubtedly true that we must get a better market for our wool before the industry will develop as it should. In obtaining this, the farmer must assist by putting a better product on the market.

DIPPING

The sheep breeder will find it to his advantage to pay some attention to dipping. If a large flock is maintained, appliances should be on hand for this purpose. It is possible to eradicate ticks, scab and other skin diseases so completely that dipping will not be necessary each year. Some South American breeders have completely exterminated these diseases, and they dip no more. This practice is also advocated by some leading United States authorities. After the flock has been thoroughly cleaned, the farmer must dip any new arrivals, in the way of purchased sheep, lest they contaminate the flock.

A dipping vat 16 inches wide, 4 feet deep and 10 feet long will be found to be very suitable for farm dipping. The end of the tank where the sheep go in should be perpendicular, so that they will be thoroughly immersed. The other end should be made an incline with a cleated bottom, thus enabling the animals to walk out themselves. This tank may be placed in a convenient spot with fences arranged to guide the sheep. A small dripping platform should be placed at the end where the sheep come out, to carry the liquid back into the tank.

The most suitable time to dip is immediately after shearing. Every sheep and lamb should be treated. Repeat the dose in ten days to get the parasites from the newly hatched eggs. Dip your sheep every year if they are not clean. Any of the coal tar dips, such as Zenoleum, Creolin or Coopers Dip will be found quite satisfactory. Mix the dip according to directions and the severity of the infection. The dip must be hot when applied. Test the temperature by thrusting the bare arm into it. When it is just as hot as you can stand, it is at the proper temperature.

HANDLING PUREBREDS.

When breeding purebreds, the sheep owner needs a better market than the regular mutton market. There is not any sane reason for putting a lot of money into high class purebred sheep unless an attempt is made to market the produce of those sheep at good prices for breeding purposes. The only way to do that is by letting the public know that you have such stock for sale. This may be done mainly in two ways—1st, Advertising; 2nd, Exhibiting.

ADVERTISING.

Carrying an advertisement with some well-known agricultural journal, giving your name and address and describing the stock you have for sale, will generally get you in touch with the men who want the class of stock you are handling. Advertise only good stock. Do not misrepresent, but live up to what you agree to do. In that way you will in a short time build up a reputation for whatever stock you are handling, providing you keep good ones. Furthermore, you will be known for your fair dealing, which is equally important if the business is to be profitable.

EXHIBITING.

It is doubtful if it pays to show extensively. Certainly, if you can get out and win some important prizes, sheep men will look to you as a good breeder. On the other hand, showing costs money, and our show rings of today require the sheep to be too highly fitted for their own good. Consequently, sheep men are shy of an animal that has been some time on the show circuit. The value of showing lies in that it offers you a means of comparing your stock with that of your neighbor, and teaches you the weakness of your animals. It is also a good means of advertising, but it cannot be expected that the showing will, in very many cases, return anything but an indirect benefit. If you have good breeding stock it will pay you to show, if not, all that

you will get out of the show yard will be the pleasure and training—which, of course, is not the least of returns.

FITTING FOR SHOW.

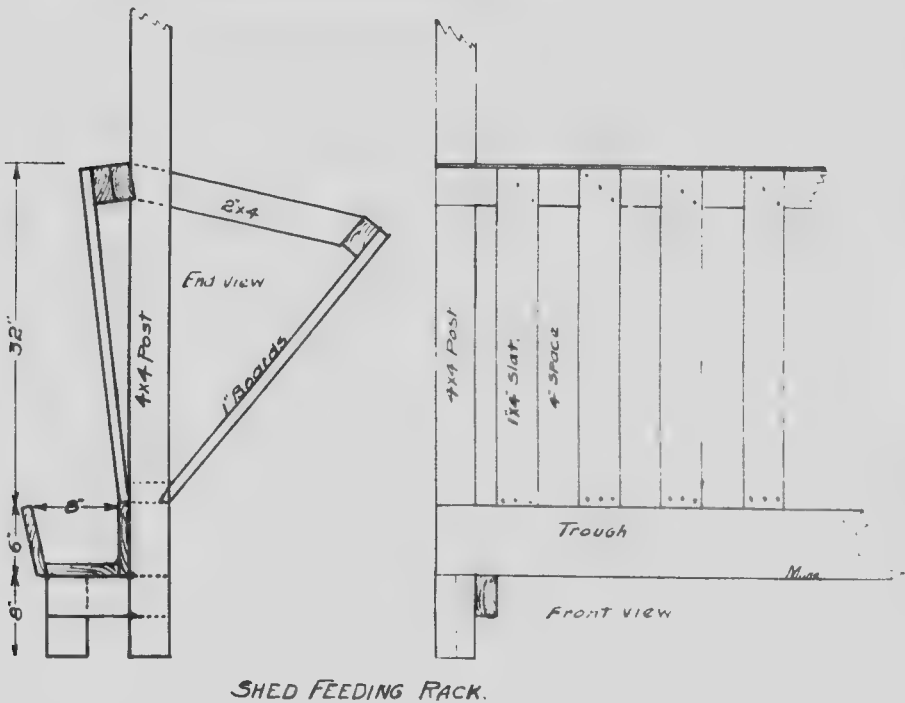
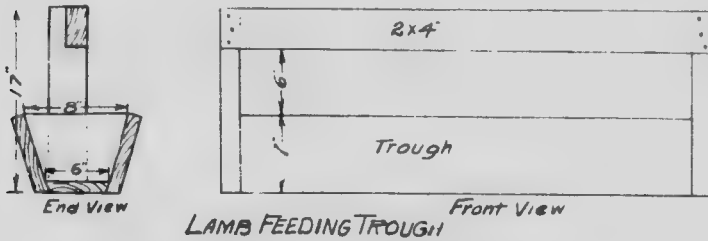
When sheep are to be shown, some preparation is necessary. The man who takes his sheep to the show ring in a dirty, rough condition does not deserve a prize. If the prize is not worth a little effort upon the part of the exhibitor, then the value of the competition is lost, and he is better without the prize. Get your sheep in good condition. Have them clean and healthy. Wash and brush the wool so as to give your animal a clean, attractive appearance. Trim the wool to add style and shapeliness to the form. If you are going to show at all, do all in your power to win, as that is when showing counts in your favor. Bad advertising is worse than none at all, and that is what a man gets when he shows poor, badly fitted stuff. Trimming must be learned by experience, so it is wise to get some practice before you attempt to trim a show sheep. A pair of hand shears must be used for this purpose, and an attempt should be made to trim off the rough edges and give the sheep as smooth and blocky an appearance as possible. The feet should be trimmed so that the sheep will stand properly. Learn how to hold a sheep and show it to the best possible advantage when in the ring.

BUILDINGS.

Discussion of the building problem will be necessarily brief, as I am of the opinion that the reader will get more from the ideas given by sheep breeders in the following pages of this bulletin. The matter of housing is less difficult with sheep than it is with any other class of animal. Sheds that give protection from rain and winds serve very well for handling sheep. However, if a man wishes to keep a permanent flock with satisfaction, he should have a fairly complete barn.

I would say that the Manitoba farmer who is keeping a large flock of ewes should have a small barn fairly well built and warm. This barn should accommodate 20 or 30 ewes, and should be built with the intention of using it for early lambs, sick sheep, or any sheep that require special attention. A barn 16 ft. by 35 ft. will do for this purpose. It should be left with an earthen or gravel floor. For walls, 2 by 4 studding set on top of a stone or cement foundation will be satisfactory. This may be double boarded, first with half-inch lumber, and this again boarded with shiplap, after having been covered with building paper. A peak roof will be found most satisfactory, as it will leave loft room above the barn. The ceiling should be about

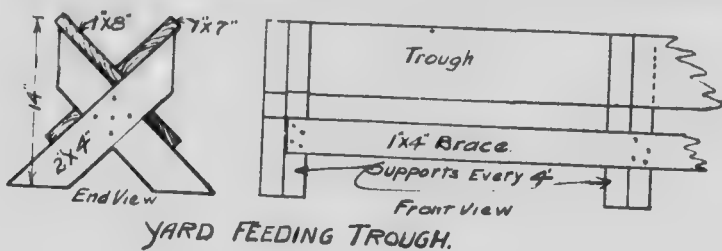
8 ft. above the floor, and the height of the loft may be left entirely to the discretion of the builder. A feed alley should be left along one side, while racks and troughs should be constructed on the same side. The barn may be divided into pens of suitable size, and the divisions made movable to allow for changes. It would be well to have



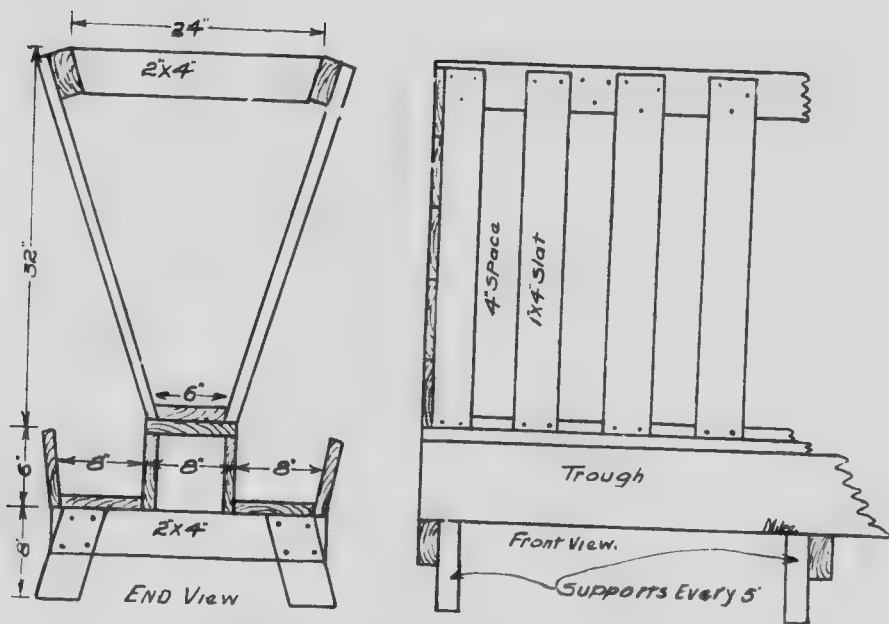
it facing the south, and have plenty of windows to get as much light as possible.

For further accommodation, cheaper and less substantial sheds should be used. A feed alley in the centre with feeding racks and troughs on both sides would serve admirably. The sheep could then

be allowed on both sides, and space would be saved. Divisions could easily be made in such a shed to keep the aged ewes, the young ewes, the wethers and the lambs in separate pens. The type of building will depend upon the material at hand and the cash to be invested. Some



YARD FEEDING TROUGH.



YARD FEEDING RACK

have found single boarded sheds, with straw roof, suitable, and others have found straw sheds successful. Keep the ewes dry, clean and well fed, and almost any type of building that will accomplish these ends will be a good one.

FENCING.

The fencing problem has always been a difficult one, but as the views of a number of practical sheepmen are given in the back of this bulletin, I will deal very briefly with it. Have a close fence if you wish to avoid trouble. Do not have barbed wire unless just on top of the fence, as otherwise it will injure the wool. Do not depend on the fences to keep the wolves away. Some woven wire fences now on the market have proven most successful as sheep fences.

REPORTS FROM SHEEP BREEDERS.

For the purpose of gaining information direct from sheep breeders, a circular letter was sent out by the Animal Husbandry Department of the college to all the sheep breeders in the province whose names and addresses could be learned.

In this letter the following questions were asked:

1. How many sheep have you?
2. What type of building do you use for housing sheep in winter?
3. What kind of fencing do you use for sheep?
4. Do you consider the above fence satisfactory?
5. Have you lost any sheep from ravages of dogs, coyotes, or wolves?
6. What grasses or feeds do you use for sheep in summer?
7. What feeds do you use for winter feeding?
8. Have you had serious losses from disease of any kind? If so, what seemed to be the trouble?
9. What sort of dip do you use to guard against scab, lice and ticks? How often and when do you dip your sheep?
10. What do you consider the best dates for lambs to come in the spring?
11. About what price per pound have you obtained for wool during the past five years?
12. What do you consider to be the chief advantages or the chief reasons why you keep sheep on your farm?
13. Do you wash your sheep before shearing? If so, do you think it pays, and in what way does it pay?

Space will not permit us to print individually the answers to these questions. Below, however, is given a summary of the replies which were received, and we wish here to thank all those who took the trouble to answer the questions and mail them back to us.

Naturally, the size of flocks kept varied greatly. The average number of sheep kept, however, appears to be about one hundred head.

Various types of buildings are used for winter housing. One breeder uses an open shed. Several use a single boarded shed with either a metal or a shingle roof. A number are using single boarded sheds with a straw roof. Some are using straw sheds. These sheds are made by threshing straw on to a pole frame. One breeder says he is using a log stable, but states that it is not satisfactory. While a number of other types of buildings are used, the reader will notice that present breeders are getting along nicely with very cheap winter shelter.

All breeders heard from, except three, use woven wire fence. Of these three, two have no fencing, and the other man has a six strand barb wire fence. The remainder of the reports tell of different classes of woven wire fence. Some have eleven wires and some have five. Nearly all have a barb wire on top, and practically all say that their fence is satisfactory. If, then, a six strand fence is proving as satisfactory as a nine strand, there is some room for economy in fencing. The breeder who uses the barbed wire says that it will keep them in, but he is not at all enthusiastic about it. One breeder speaks highly of a five strand smooth wire woven fence with a barb on top.

Of the reports received, about one-third report slight loss from wolves, only one breeder reporting serious loss. One-fifth of the reports received mention loss occasioned by dogs—none of the losses were extensive. About 45% of the breeders have not had any loss from either source.

As to feeds used, the following summer pasture crops were mentioned: Prairie Grass, Rape, Brome Grass, Clover and mixed grains. Rape and Brome are used most extensively. Most farmers allow the sheep to run on the summerfallow, and a few of them sow some grain or rape on the summerfallow in order to increase the pasture available.

Among the winter feeds used we find the following: Prairie Hay, Wheat, Oats, and Barley Straw, Corn Fodder, Oat Sheaves, Barley Sheaves, Alfalfa Hay, Roots, Mill Screenings and Oats. Hay is the most common feed, above 60% use it. About 30% use oats, and an equal number use oat sheaves. Only one man used roots, and one used alfalfa.

About 90% of the reports state that they have not had any losses from disease. One man lost 15 lambs from scours, another had a few losses from an unknown cause. No further losses from disease were reported.

About 25% of the breeders state that they have not dipped at all, but they nearly all admit its advisability. Of those who do, a few dip once a year, immediately after shearing, and the remainder dip twice, after shearing and before the cold weather in the fall. The following kinds of dip have been used: McDougald's Highland, Little's, Cooper's, Royal Purple, and Creolin. All breeders report satisfaction.



COMMENCING TO SHEAR

A few breeders prefer to have the lambs come early, the latter part of March and the first part of April being suggested as the most suitable dates. Several prefer to have the lamb dropped from the middle of April to the first of May. The majority, however, prefer to have them come from the 1st to the 10th of May. Those who prefer early lambs state emphatically that warmer and more expensive buildings are required when early lambs are raised.

Most breeders report 11c for unwashed wool; a few report 9c and 10c, and one or two report 16½c. The average is slightly over 11c net. One breeder who puts his wool up in good shape realized 16½c net last year. This is an argument for the better care of wool.

When reporting upon the advantages of sheep upon the farm, about 90% of the breeders emphasize their usefulness as weed destroyers. About 50% of them say that they are the most profitable animal upon

the farm. A few mention the advantage of a revenue twice a year. One breeder does not find any advantage, and seems inclined to quit raising sheep.

None of those who reported make any effort to wash the sheep before shearing, or to wash the fleece before marketing. All hold that it does not pay.

The report as a whole is exceptionally favorable, and augurs well for the future of the sheep industry of this province.

NOTE:—The Manitoba Agricultural College acknowledges appreciation of the services of Prof. W. H. Peters, and Lecturer F. W. Crawford in the preparation of this Bulletin. Both Prof. Peters and Mr. Crawford were connected with the Animal Husbandry Department of the College at the time the Bulletin was being compiled.